

ALBERT A. BURCHETT

Attorney At Law

P. O. Box 0346

Prestonsburg, Kentucky 41653

September 9, 2004

Mr. A.W. Truner
Staff Attorney
Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RECEIVED
SEP 10 2004
PUBLIC SERVICE
COMMISSION

RE: Case No. 2004-00085

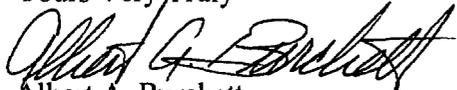
Dear Mr. Truner:

Pursuant to the Commission's order dated June 10, 2004 and received June 14, 2004, enclosed are samples of field safety inspection reports by Big Sandy RECC and G & S over the months of June, July and August, 2004 (Exhibit "A").

Also enclosed are representative copies of the minutes of Big Sandy RECC's safety meetings (Exhibit "B").

If more documentation is needed, Please advise.

Yours Very Truly


Albert A. Burchett

ROW Big Sandy RECC Crew



Big Sandy RECC
504 11th Street
Paintsville, KY 41240
(606) **RECEIVED**

Field Safety Inspection

SEP 1 2004

Date: 6-28-04
Crew Leader Obie Ratliff
Crew Members: Chris Ratliff
Dave Riasby

Location: Greasy Creek
Truck #s 176 pickup

PUBLIC SERVICE
COMMISSION

Type of Work Being Performed:
Tree felling Single ϕ ROW

Safety Procedures Being Used:

Felling cuts.
Fell trees from uphill side.
Separation between
workers more than
twice the height of trees
being cut.

Personal Protection Equipment

Chaps
Safety Glasses
Hard Hat
Hearing Protection
Proper clothing

Safety Violations:

None

Comments: ROW workers were using PPE and good
general safety practices.

Observers:

Jeff Prater



Big Sandy RECC
 504 11th Street
 Paintsville, KY 41240
 (606) 789-4095

Field Safety Inspection

Date: 6-30-04 Location: Station Br., Princeton
 Crew Leader Ralph Leslie Truck #s 174
 Crew Members: Chris Drate 184
Bobby Collins, Paul Gobel 194
Shawn Pennington

Type of Work Being Performed:
Relocation of Service Pole Secondary Voltage

Safety Procedures Being Used:
Fall Protection
Rubber Gloves
Handline
Work area identified well

Personal Protection Equipment
Hard Hats
Safety Glasses
Gloves

Safety Violations: None

Comments: Work area well marked, Good general safety practices.

Observers:
Jeff Drate



Big Sandy RECC
 504 11th Street
 Paintsville, KY 41240
 (606) 789-4095

Field Safety Inspection

Date: 7-27-04

Location: John's Creek

Crew Leader Ralph Leslie

Truck #s _____

Crew Members: Chris Prater

Shawn Pennington Paul Gohed

Bobby Collins

Type of Work Being Performed:

Installing yard light on secondary pole & removing
 Triplex wire

Safety Procedures Being Used:

Handline use

Personal Protection Equipment

Hard Hats

Work Gloves

Safety Glasses

Safety Violations:

Lineman on hot secondary pole without
 safety glasses

Comments:

Talked to lineman about not having safety
 glasses on.

Observers:

Jeff Prater BSRECC

Ray King KAEC



Big Sandy RECC
 504 11th Street
 Paintsville, KY 41240
 (606) 789-4095

G+S Contractors
 Field Safety Inspection

Date: 7-27-04 Location: Mouth of Colvin Branch

Crew Leader Ron Sexton Truck #s _____

Crew Members: Joseph Sammons 1 Digger

Paul Holbrook Ellen Owens 2 Buckets

Ron Porter 1 Pickup

Type of Work Being Performed: _____

Change out of C + pole

Safety Procedures Being Used: _____

Cover up/Hoses +
Blankets

Road Signs
Road Cones
Work Zone marked

Personal Protection Equipment

Hard Hats
Rubber Gloves
Safety Glasses
Safety Harness

Safety Violations: No Ground cable on bucket, Contractor
said it had been torn off and a new one was ordered to
replace it.

Comments: Talked to Mr. Sexton and he assured me he
would replace ground cable with a new orange grounding
cable as soon as he received it.

All other work procedures looked good.

Observers:

Ray King Ray King
KAEC Jeff Prater
Jeff Prater

Follow up:
 Ground Cable
 was
 Repaired
 Photos



Big Sandy RECC
 504 11th Street
 Paintsville, KY 41240
 (606) 789-4095

Field Safety Inspection

Date: 8-6-04 **Location:** Jenny Wiley Road
Crew Leader: Chester Pennington **Truck #s:** 196
Crew Members: Steve Campbell
Steve Ward
Bobby Collins
Dewayne Ratliff

Type of Work Being Performed:
Resagging downed line on hillside area.

Safety Procedures Being Used:

Grounds
Hot Sticks

Personal Protection Equipment

Hard Hat
Safety Glasses
Overshoes

Safety Violations: None

Comments: Working in a remote area to repair storm damage.

Observers:
J.P. Frater



Big Sandy RECC
 504 11th Street
 Paintsville, KY 41240
 (606) 789-4095

Field Safety Inspection

Date: 8-12-04 Location: Leander / south of Coalinga
 Crew Leader C. Pennington Truck #s _____
 Crew Members: J. Campbell _____
D. Rattiff _____
B. Collins _____

Type of Work Being Performed:
Hangin' transformer, service pole & service drop

Safety Procedures Being Used:

Grounding stick

Personal Protection Equipment

Hard hats
Safety glasses
Overalls
Rubber shoes

Safety Violations:

Comments: Voltage Detector batteries were dead. Voltage detector batteries replaced and tested 8-13-04.

Observers:
Jeff Prater

Job Briefing

9631

Date 6-16-07 Work Order # _____

Crew Leader Donald Sexton

Status of Job: Routine Emergency Other _____

Briefing Type: On-Job (tailgate) Update Other _____

Hazards associated with the job: Energized equipment Falling

Driving Hazards to the public ...
 Other Hazards _____

Work Procedures involved: Traffic Control Road Signs/Cones
 Flagmen Standard Operating Procedures (SOP) Safety Manual
 Contact with other entities
 Other procedures _____

Special Precautions: Adjacent equipment / Buried Gas & Water Lines
 Other Crews / Workers
 Other precautions _____

Energy Source Controls: De-energization procedure Visible Opening
 Testing for Voltage Grounding
 Other controls WIRE HOT

Personal Protective Equipment requirements: Hard Hat Safety Glasses
 Dielectric boots Hearing Protection Cover-up Gloves
 Other PPE _____

SIGNATURES

Crew Leader Donald Sexton

Crew Members Alan B. Wood

Don Sexton

Paul Holbrook

Justin James

Job Briefing

Date 6-9-04 Work Order # 9656 SI

Crew Leader Ronald SEXTON

Status of Job: Routine Emergency Other

Briefing Type: On-Job (tailgate) Update Other

Hazards associated with the job: Energized equipment Falling

Driving Hazards to the public

Other Hazards

Work Procedures Involved: Traffic Control Road Signs/Cones

Flagmen Standard Operating Procedures (SOP) Safety Manual

Contact with other entities

Other procedures

Special Precautions: Adjacent equipment / Buried Gas & Water Lines

Other Crews / Workers

Other precautions

Energy Source Controls: De-energization procedure Visible Opening

Testing for Voltage Grounding

Other controls work hot

Personal Protective Equipment requirements: Hard Hat Safety Glasses

Dielectric boots Hearing Protection Cover-up Gloves

Other PPE

SIGNATURES

Crew Leader Ronald Sexton

Crew Members Jimmy Papp

Ronald Sexton

Paul Holloway

Brian Westbrook

Steve A. Coland

William James

Job Briefing

Date 8-17-04 Work Order # 9708

Crew Leader REARDAL SEXTON

Status of Job: Routine Emergency Other

Briefing Type: On-Job (tailgate) Update Other

Hazards associated with the job: Energized equipment Falling

Driving Hazards to the public

Other Hazards

Work Procedures involved: Traffic Control Road Signs/Cones

Flagmen Standard Operating Procedures (SOP) Safety Manual

Contact with other entities

Other procedures

Special Precautions: Adjacent equipment / Buried Gas & Water Lines

Other Crews / Workers

Other precautions

Energy Source Controls: De-energization procedure Visible Opening

Testing for Voltage Grounding TRUCKS

Other controls WORK HOT

Personal Protective Equipment requirements: Hard Hat Safety Glasses

Dielectric boots Hearing Protection Cover-up Gloves

Other PPE

SIGNATURES

Crew Leader [Signature]

Crew Members [Signature]

[Signature]
[Signature]
[Signature]
[Signature]

Job Briefing

Date 8-11-04 W. Order # 981051

Crew Leader Rondal SEaton

Status of Job: Routine Emergency Other

Briefing Type: On-Job (tailgate) Update Other

Hazards associated with the job: Energized equipment Falling

Driving Hazards to the public

Other Hazards

Work Procedures involved: Traffic Control Road Signs/Cones

Flagmen Standard Operating Procedures (SOP) Safety Manual

Contact with other entities

Other procedures

Special Precautions: Adjacent equipment / Buried Gas & Water Lines

Other Crews / Workers

Other precautions

Energy Source Controls: De-energization procedure Visible Opening

Testing for Voltage Grounding TRUCKS

Other controls WORK HOT

Personal Protective Equipment requirements: Hard Hat Safety Glasses

Dielectric boots Hearing Protection Cover-up Gloves

Other PPE

SIGNATURES

Crew Leader [Signature]

Crew Members [Signature]

[Signature]

[Signature]

[Signature]

Job Briefing

Date 17-8-04 Work Order # 9623 SI

Crew Leader Richard Sexton

Status of Job: Routine Emergency Other

Briefing Type: On-Job (tailgate) Update Other

Hazards associated with the job: Energized equipment Falling
 Driving Hazards to the public
 Other Hazards

Work Procedures involved: Traffic Control Road Signs/Cones
 Flagmen Standard Operating Procedures (SOP) Safety Manual
 Contact with other entities
 Other procedures

Special Precautions: Adjacent equipment / Buried Gas & Water Lines
 Other Crews / Workers
 Other precautions

Energy Source Controls: De-energization procedure Visible Opening
 Testing for Voltage Grounding
 Other controls

Personal Protective Equipment requirements: Hard Hat Safety Glasses
 Dielectric boots Hearing Protection Cover-up Gloves
 Other PPE

SIGNATURES

Crew Leader Richard Sexton

Crew Members Steve K. Coland

Joseph James

Paul Wollock

Job Briefing

Date 7-21-04 Work Order # 9557

Crew Leader Ronald SEXTON

Status of Job: Routine Emergency Other

Briefing Type: On-Job (tailgate) Update Other

Hazards associated with the job: Energized equipment Falling

- Driving Hazards to the public
- Other Hazards

Work Procedures involved: Traffic Control Road Signs/Cones

- Flagmen Standard Operating Procedures (SOP) Safety Manual
- Contact with other entities
- Other procedures

Special Precautions: Adjacent equipment / Buried Gas & Water Lines

- Other Crews / Workers
- Other precautions

Energy Source Controls: De-energization procedure Visible Opening

- Testing for Voltage Grounding
- Other controls WPAK MAT

Personal Protective Equipment requirements: Hard Hat Safety Glasses

- Dielectric boots Hearing Protection Cover-up Gloves
- Other PPE

SIGNATURES

Crew Leader Ronald Sexton

Crew Members Jimmy R. [unclear]

Steven R. [unclear]

Joseph Sammons

Paul Hoffbrook

Barry [unclear]

**SAFETY MEETING
June 22, 2004
RAY KING, SAFETY DIRECTOR**

RECEIVED

SEP 10 2004

PUBLIC SERVICE
COMMISSION

TOPIC: POLE TOP RESCUE VIDEO

**Procedures to follow for Pole Top Rescue in the event an employee
Finds a crew member down.**

- (1) Call out to victim.**
- (2) Call for help (dispatcher).**
- (3) Put on climbing tools.**
- (4) Climb pole.**
- (5) Safety off at victims feet (be aware victim may kick).**
- (6) Leave safety belt down. Walk up pole.**
- (7) Check victims pulse.**
- (8) Take block of handline rope.**
- (9) Put handline over crossarm. Do not cross.**
- (10) Drop other end to ground.**
- (11) Put rope around victims chest – tie up high.**
- (12) Take up slack, cut safety strap.**
- (13) Lower smoothly to the ground.**

**Another crew member should be on the ground to check victim for
First Aid CPR:**

**Airway
Breathing
Pulse**

Annual Refresher Training

Lesson Plan

Title:	Pole Top Rescue
Target Audience:	Electric Utility Line Workers
Purpose:	Annual Refresher Training
Learning Objectives:	<p>At the conclusion of training, the student will be able to:</p> <ul style="list-style-type: none">* Demonstrate procedures for pole top rescue* Know the proper procedures for May-Day call* Know the proper procedures for a conscious victim* Know the proper procedures for an unconscious breathing victim* Know the proper procedures for an unconscious and not breathing victim
Sequence of Instruction:	<ul style="list-style-type: none">* Show video tape of pole top rescue procedures as needed* Hands-on demonstration* Evaluation form for accreditation
References:	APPA Safety Manual 1406-1408
Prepared by:	

PRESENT:

BIG SANDY EMPLOYEES PRESENT:

1. Nathan Frisby
2. Chester Pennington
3. Doug Holbrook
4. Ralph Leslie
5. Bill Jarrell
6. Manis Prater
7. Mark Crider
8. Kirby Castle
9. John Harrison
10. Hollie Ratliff
11. Steve Campbell
12. Shaw Pennington
13. Chris Judd
14. Bobby Collins
15. Fred Baldwin
16. David Rigsby
17. Chris Ratliff
18. David Robinson
19. Jeff Prater

G & S CONTRACTORS

1. Ronald Sexton
2. Steve R Ward
3. Paul Holbrook
4. Linzie Estepp
5. Doug H Hamilton
6. Joseph Samons
7. Brian Grimstead
8. Ronald L Porter

Pole Top Rescue

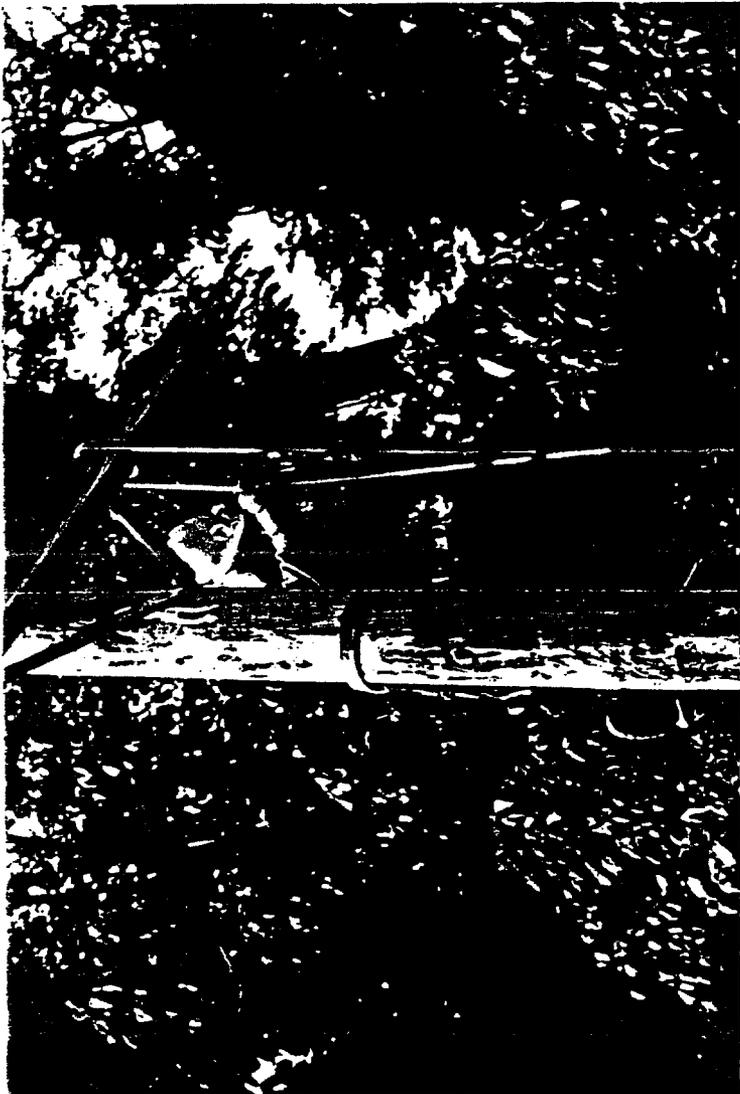
Date	Time	AM/PM															
6-28-04																	
Instructor	RAY KING																
<input checked="" type="checkbox"/> Pass Skill	<input type="checkbox"/> Non Pass																
Print Name	Company	Calls To Victim	Makes Call For Help	Properly Secures Belt/Climbers	Hammer, Pliers, Screwdriver, Knife, Rope	Picks Up Rubber Gloves	Climbs Belted Near Victim	Approved Rigging Method	Approved Attachment To Victim	Removes Rope Slack	Cuts Away From Self	Controls Victims Decent	Smooth Rescuer Decent	Removes Belt/Hooks	Initates CPR/FA	Overall Evaluation	Rescue Time
Kirby Castle	Bud Smith	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	8:45:42
Bill Farrell		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	8:50:00
Dwayne Ratz, ff		✓	✓	✓	✓	✓	✓	✓	✓	✓	SP-1	✓	✓	✓	✓	Good	8:58:50
Mark Gilder		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:00:00
Steve Cambell		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:03:53
Steve Ward	GAS contractor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:08:10
MAN's Prater	Big Sandy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:12:00
Isaiah Sammons	GAS contractor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:17:12
Shawn Rouningston	B:q Sandy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:21:37
Doug Holbrook		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:26:56
pester Rouningston		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:32:15
Harold Leslie		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Good	9:37:51

start









SAFETY MEETING
July 27, 2004
RAY KING, SAFETY DIRECTOR

TOPIC: KAEC ANNUAL REFRESHER TRAINING

**Work Zone Traffic Control for Select Electric Utility Workers.
The refresher training will enable workers to:**

- (1) Understand the necessity of Work Zones for Traffic Control.**
- (2) Identify the process of sizing up the needed Work Zone Controls.**
- (3) Understand and make proper use of warning equipment.**
- (4) Understand circumstances making each work zone unique.**
- (5) Understand the basics of flagging operations.**

Handouts were distributed and exercises were made to demonstrate different work zone scenarios. A booklet "Guidelines for Traffic Control in Work Zones" was given to Safety Director for reference.



Annual Refresher Training

Lesson Plan

Title:	Work Zone Traffic Control
Target Audience:	Select Electric Utility Workers
Purpose:	Annual Refresher
Learning Objectives:	<p>At the conclusion of training the student will be able to:</p> <ul style="list-style-type: none">☐ Understand the necessity of Work Zones for Traffic Control☐ Identify the process of sizing up the needed Work Zone Controls☐ Understand what should occur in the Warning, Transition, Work, and Termination Zones☐ Understand and make proper use of warning equipment☐ Understand circumstance making each work zone unique☐ Understand the basics of flagging operations
Sequence of Instruction:	<p>Distribute handouts to students Lecture following the PowerPoint presentation Tabletop exercises demonstrating different work zone scenarios</p>
References:	<p>Manual on Uniform Traffic Control Devices, U.S. Department of Transportation</p>

Prepared by:

Murray State University Occupational Safety & Health Training Center

PRESENT:

BIG SANDY EMPLOYEES PRESENT:

1. Nathan Frisby
2. Chester Pennington
3. Doug Holbrook
4. Mark Crider
5. Hollie Ratliff
6. Steve Campbell
7. Shaw Pennington
8. Chris Judd
9. Bobby Collins
10. Fred Baldwin
11. David Rigsby
12. Jeff Prater
13. Steven Ward
14. Paul Goble
15. Chris Prater
16. Roger Akers
17. Bobby Sexton

G & S CONTRACTORS

1. Ronald Sexton
2. Joseph Sammons
3. Ellery Owens
4. Brian Grimstead
5. Paul Holbrook
6. Ronald L Porter
7. Linzie Estep

Glossary

Activity Area – The area in the Work Zone, which is where the workers do their various job functions

Advance Warning Area – The distance from the first sign until action is required of the driver. Action could include merging, changing lanes, reducing speed, or coming to a stop.

Buffer Space – That part of the Work Zone that is in-between the transition area and the workspace

Mobile – Work that moves intermittently or continuously

MUTCD – Manual on Uniform Traffic Control Devices

Short Term Duration – Work that occupies a location for up to one hour

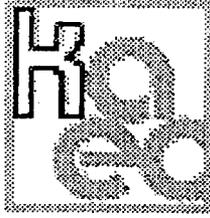
Short Term Stationary – Work that occupies a location for up to twelve hours

Termination Area – That part of the Work Zone where traffic resumes its normal course and speed

Traffic Control in Work Zones – A pocket guide that provides information at a glance to bring Work Zones in compliance with the U.S. Department of Transportation MUTCD requirements

Transition Area – That part of the Work Zone where traffic changes from normal travel. Action could include merging, changing lanes, reducing speed, or coming to a stop.

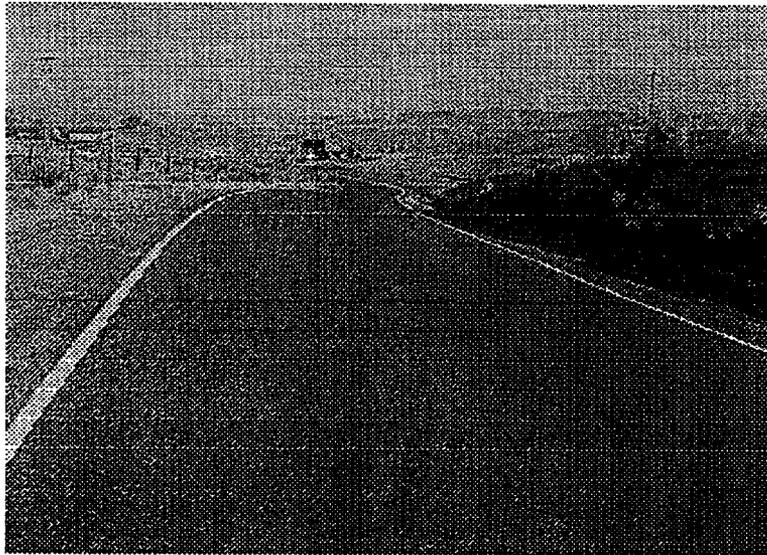




Kentucky Association of Electric Cooperatives

Annual Refresher Training

Traffic Controls In Work Zones



Prepared by:

Murray State University Occupational Safety & Health Training Center



Training Objectives

At the conclusion of training the student will be able to:

- ❖ Understand the necessity of traffic control Work Zones for traffic control
- ❖ Know the elements of the traffic control Work Zone
- ❖ Understand what takes place in the Warning, Transition, Work, and Termination Areas of the Work Zone
- ❖ Have knowledge of the different types of traffic control devices
- ❖ Understand the circumstances that make each Work Zone unique
- ❖ Understand basic flagging operations
- ❖ Know where to go for guidance in setting up Work Zones

The subject of this module is the Manual of Uniform Traffic Control Devices, the Millennium Edition of December 2000. OSHA has accepted this guidance document for Traffic Control Work Zones.



Introduction

Every year the volume of traffic in the nation increases. Millions of motorists all seeming to be in a hurry rush by and through utility crews, road repair crews, and emergency workers such as fire and police paying seemingly no attention to their presence. Every year tragic accidents occur in Work Zones injuring many and killing some. In the year 2001 there were an estimated 1,093 fatalities in work zones in the United States. By getting the attention of the drivers they can be informed about the hazards that are ahead, taking the proper actions to reduce their risk, to the utility workers, themselves and those individuals who are in the vicinity of the work zone.

The Department of Transportation has developed guidelines for the setting up of roadway work zones. Called the Manual on Uniform Traffic Control Devices, this guide provides us with guidance on how to protect ourselves physically, and reduce the Electric Coop's liability by providing uniform and acceptable traffic control. Although this will take some effort to put into practice, it will provide increased protection from traffic traveling by us while we are working.

Purpose of Temporary Traffic Controls

Temporary traffic controls provide for the safe and effective movement of vehicles around the work area. A proper traffic control work zones will alert the driver to our presence, give them information about what actions they need to take, and give them sufficient time to react and to take those actions. A safer working environment will result.

Who is Covered?

OSHA requires all employers to provide a safe and healthful work place for its employees. OSHA has a standard for Work Zones called the "Safety Standard for Signs, Signals, and Barricades, these regulations are found in 29 CFR 1926.200, 201, and 202.

On December 11, 2002 OSHA issued a letter stating that if the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD) was followed by organizations working in and adjacent to traffic that these would be acceptable control measures. This standard was not developed by OSHA but by a group including the Federal Highway Administration, American Traffic Services Association, the American Association of State Highway and Transportation Officials, the Association of General Contractors, the American Road and Transportation Builders, and more than twenty other groups who deal with traffic in work zones.

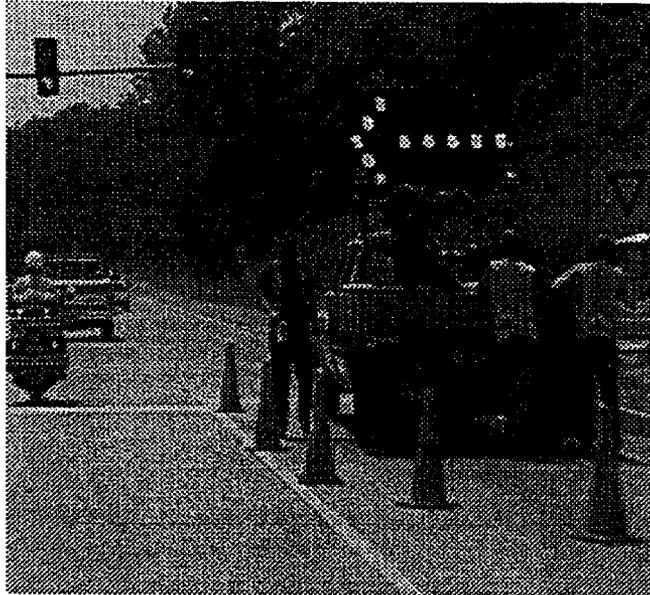


Employer Responsibilities

- Provide the proper equipment for meeting the MUTCD standards.
- Provide training and guidance for how to set up the traffic control work zone.

Employee Responsibilities

- Follow the employer's rules with regards to traffic control in the work zone.



Work Zone closing one lane on a four lane Highway with a median

Traffic Control in the Work Zone

Traffic control measures in the work zone vary due to a variety of circumstances. The amount of traffic, type of road, weather, and duration of the work are all significant. To better help us understand these variables, we will be dividing the traffic control work zone into four different sections, and also the role the flagger plays in providing traffic control. The zones are the Advance Warning Area, the Transition Area, the Activity Area, and the Termination Area. By careful evaluation of each factor affecting each of these areas, a safe work zone can be constructed.



Advance Warning Area

The Advance Warning Area alerts the driver that there is activity ahead, and informs them what actions are necessary. Advanced warning may be nothing more alerting than them to the fact that there is activity on the shoulder of the road ahead. Advance warning may inform the driver of a lane change, the need to stop, and / or that there is a flagger ahead. A large orange sign with black lettering is recommended in most cases with information about what is ahead. The signs are 48" by 48" in size and for short-term activity are placed at least one foot off the surface of the roadway. The signs are placed on the side of the road that the work activity will be occurring on. If the roadway is blocked in some manor requiring that vehicle traveling in two directions share the same lane a sign will be placed at both ends of the Work Zone. The signs like the rest of the Work Zone is set up just prior to the beginning of work in the Zone and taken down shortly after the work is completed.



The length of the Advance Warning Area depends on several factors. The speed of the traffic multiplied by eight is the distance typical for conditions were visibility, weather, and terrain is not extreme. For example if the speed limit is fifty-five miles an hour and we multiply that by eight, then the distance the sign should be prior to reaching a point ware action must be taken by the drive is four hundred and forty feet.

$$55 \text{ mph} \times 8 = 440 \text{ feet}$$

Factors that would influence this formula include an obstructed view by the drivers due to a hill or a curve. A downhill slope will require greater advance warning to truckers because of the increase in stopping distance. Rain and icing conditions will also increase the advance warning needed.

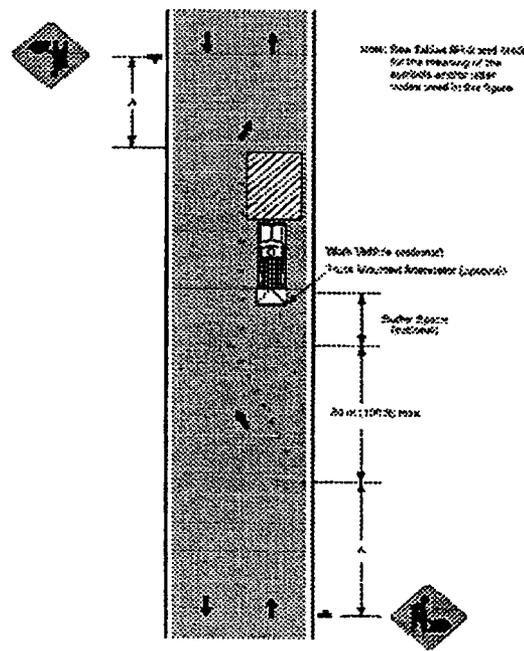


Transition Areas

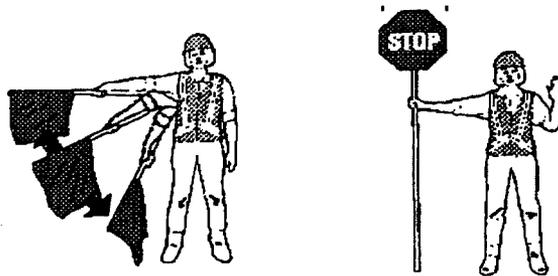
Transition Areas are the part of the Work Zone where the driver of the vehicle takes action to meet the need of the particular work zone. Reducing speed, merging, preparing to stop are all activities that take place in the Transition Area. Transition Areas are influenced by the same factors, which influence the Advance Warning Area. The amount of traffic is important if the drivers must share the lane or lanes that they have been traveling in. For example, two lanes traveling in the same direction becomes one or a typical two lane divided highway is cut down to one lane. Typically a chart found in the Guidelines for Traffic Control in Work Zones pocket manual is used to determine the amount of roadway needed to be provided for vehicles to make the necessary changes. Below is a sample chart for determining the length provided for the vehicles to change lanes. They call this the Taper Length. The Taper begins after the Advance Warning distance has been achieved.

Speed Limit Lane width 11 feet	Length of Tape	Spacing Between Cones
25	125 feet	25 feet
35	245 feet	35 feet
45	495 feet	45 feet
55	605 feet	55 feet

Tapers can be done with cones, barricades, or plastic barrels. Most often due to the short-term work done by Electric Crews cones are used. Warning signs and tapers need to be used whenever there is equipment stopped in a lane of travel.



The flagger needs to be equipped with a bright reflective vest meeting the ANSI Class II standards. They also need to have a red stop sign, and an orange slow sign to assist them in controlling vehicular traffic through the Work Zone. The sign is at least 18 inches wide with 6-inch lettering.



Signs are more informative and leave little interpretation for drivers to misunderstand

The flagger is stationed near, but not in the lane of traffic. They use their hand signaling sign, and hold the palm of their hand up at least to shoulder height to stop traffic. They need to be polite but firm. Once it is clear for the vehicle to proceed they reverse the sign and wave the traffic through. The flagger can be positioned so as to see and be seen by all traffic they will be directing. For a short-term operation on two lane roads this is often done on the shoulder of the opposite side of the Activity Area.

If the Work Zone is large and the passing traffic cannot see the other end of the lane being traveled, two flaggers working together may be used. Hand signals, cell phones, two way radios, or the flag transfer are all ways flaggers can insure that oncoming cars will not meet.

Summary

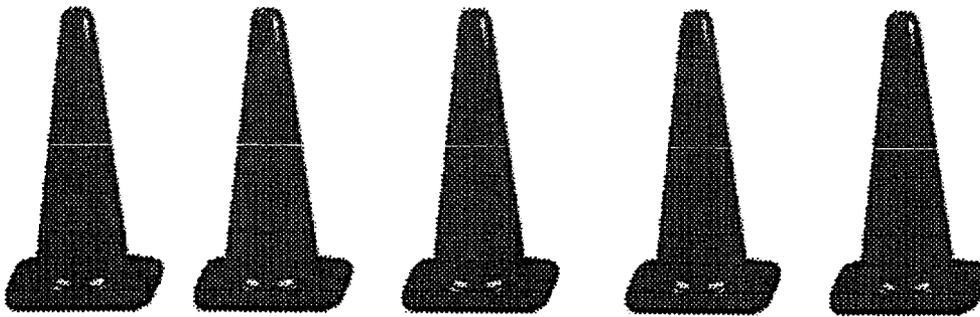
A few moments spent sitting up traffic controls in the Work Zone greatly increases the safety of those working in or along side the road. Take a few moments to evaluate the circumstances. The type of road, traffic, weather, terrain and how much of the road will be blocked are all factors to consider. The pocket guidebook Traffic Control in Work Zone should be consulted to ensure proper Work Zone set up. Proper equipment to alert and control traffic is essential and should be readily available. Set up just prior to the beginning of work activities and tear down shortly after the work is completed.



Activity Area

The Activity Area is that which is occupied by the workers. The area is divided into a buffer and the workspace. Those who are directing traffic, the flaggers often occupy the buffer area. This area is provided so that if a vehicle crosses the taper it has time to stop or divert prior to hitting the workspace and those occupying it. It is a critical area for roads with increased speeds and traffic.

The work area is where equipment, materials storage and workers are located. If possible, vehicles and materials should be located prior to the work area so that some protection is afforded work crews if a vehicle crosses into the activity area. Even though the Activity Area has been well defined ahead of time, markers should continue to mark the Work Zone to prevent the accidental merging of traffic back into the Activity Area.



Eighteen and twenty four inch high traffic cones are preferred because they are more visible. Reflective cones should be considered if activities could occur at night.

Termination Zones

The Termination Zone lets traffic resume it's normal operations. Merging back into two lanes of travel, resuming the speed limit etc. occur in this zone. If the work activity has blocked a lane, a transition taper should be set up. The transition taper typically made out of cones is one-third the length of the Transition Area. For example if the Transition Taper was determined to be 495 feet then the Termination Zone tape would be 165 feet in length.

Flagging and Flaggers

Flaggers provide temporary traffic control. The flagger should have in mind what they are trying to accomplish, and be properly equipped to perform their duties. Prior to the flagger beginning their duties, the Advance Warning Zone, Transition Area, Activity Area and Termination Area should be determined.

On coming traffic should be alerted to the presence of the flagger. The flagger should be visible for at least 1,000 feet by vehicles arriving at their location.



SAFETY MEETING
August 25, 2004
JEFF PRATER, SUPERINTENDENT & SAFETY DIRECTOR

TOPIC: LOCKOUT/TAGOUT

Discussion covering Big Sandy Rural Electric Cooperative Corporation Lockout/Tagout procedure, hold cards and caution Tags for placing OCR in "one shot".

Handouts given to everyone in attendance entitled "Lockout/Tagout Procedures for Big Sandy RECC.

PRESENT:

BIG SANDY EMPLOYEES PRESENT:

1. Chris Prater
2. Obie Ratliff
3. Chris Judd
4. Paul Goble
5. Fred Baldwin
6. David Rigsby
7. Bobby Collins
8. Chris Ratliff
9. Chester Pennington
10. Steve Campbell
11. John Harrison
12. Mark Crider
13. Doug Holbrook
14. Manis Prater
15. Bill Jarrell
16. Steve R Ward
17. Nathan Frisby
18. Roger Akers
19. Kirby Castle

G & S CONTRACTORS

1. Ronald Sexton
2. Joseph Sammons
3. Ellery Owens
4. Brian Grimstead
5. Paul Holbrook
6. Ronald L Porter
7. Linzie Estep

Lockout/Tagout Procedure for Big Sandy RECC

Purpose:

This procedure establishes the minimum requirement for the operation of line switches to ensure the line is isolated from all potentially hazardous energy sources before any work is performed on a line section.

Responsibility:

All employees who operate distribution line switches for Big Sandy RECC are required to follow this procedure.

No employee shall attempt to operate any distribution line switch that has been *Hold Carded* without direct verbal permission from employee who ordered the switch *Hold Carded*.

Sequence of Lockout/Tagout Procedure

- Notify Paintsville & Prestonsburg dispatch (after hours dispatcher if possible during emergency restoration)
- Give location of switch.
- Area affected.
- Name of person ordering clearance.
- Operate device.
- Verify visible opening (If an OCR is operated the jumper must be removed from line for a visible opening or the OCR must be *Hold Carded*).
- Hold Card if necessary.
- Check line for voltage (If no voltage detected)
- Ground Line (If two way feed is possible ground bot sides of work area).

Returning Switch to Service

Remove grounds
Notify dispatch
Return switch to normal
Notify dispatch switch re-energized
Remove *Hold Card* (If *Hold Carded*)

In emergency restorations, or during after hours, when a dispatcher cannot be contacted all switches must be *Hold Carded* before any work is performed on line.

Only the employee who ordered the *Hold Card* on the switch can give permission for another employee to remove the *Hold Card*. This permission must be given directly to the employee who shall remove the *Hold Card* and cannot be relayed.

During emergency restoration work where a fault has occurred, the line shall be patrolled before attempting to re-energize switch.

Before "Hot Work" or "Live Line Tool Work" is performed the employee in charge shall:

- Notify dispatcher.
- Disable the automatic reclosing feature of the OCR (place in one shot) feeding the circuit if equipped with such a device before working on any energized line or equipment.

When work is finished:

- Notify dispatcher.
- Return switch to normal.